Bioengineered Seeds & Plants

Question:
"Bioengineered foods could limit world hunger" "Save our agricultural heritage and fight Gene-Altered FrankenFoods". I would love to see the end of hunger in the world and yet, at the same time, I wonder about the long-term effects of such crops. I plant a vegetable garden each year avoiding non-organic pesticides and unnecessary fertilizers. How do I know that the seeds and plants I put in my garden and yard are not genetically bioengineered with genes spliced from pesticides or other plants?

Answer:
The short answer is you can't. Changes are on a molecular level, unverifiable without special training and equipment, if then.

Many of us will recall from high school biology the 19th century Austrian monk, Gregor Johann Mendel, "the father of genetics", crossing different varieties of garden peas and recording the results of his work in a methodical scientific manner eventually explaining the inheritance of characteristics resulting from the combination of parent genes. He did this by hand, laboriously transferring pollen from pea X to pea Y, thereby "creating" pea XY carrying traits of each parent plant. Today's science is way beyond that. The crossing is no longer hand pollination but super sophisticated gene splicing between plants and even animals and insects.

Regulatory agencies governing the issue now are basically three: the Food and Drug Administration, the Environmental Protection Agency, and the United States Department of Agriculture. While some regulations do apply to GE, with few exceptions, these agencies consider GE plants and plant products to be substantially equivalent to non-genetically bioengineered plants, those developed just as Mendel did a century ago.

Until the government requires labeling, you can avoid GE in your garden by saving seeds from plants you know to be pure and purchasing new seeds & plants of heritage, heirloom or hybrid varieties from companies who are also concerned about GE. One way to do this is to patronizing companies who are members of the Safe Seed Initiative sponsored by the Council for Responsible Genetics. Over 100 member companies have taken a "Safe Seed Pledge" to "not knowingly buy or sell genetically engineered seeds or plants." Listed below are three popular and reputable seed companies who have taken the Safe Seed Pledge.

Baker Creek Heirloom Seeds
2278 Baker Creed Rd.
Mansfield, MO 65704
Phone 417-924-8917
Web site www.rareseeds.com

Although you can't tell it from the fairy tale picture on the cover, Baker Creek Seeds is militantly committed to providing non-GE seed and plants. Along with an extensive

offering of heirloom and heritage varieties, their 83 page color catalog will urge you to get in touch with national food companies and your congressional leaders to lobby against GE. Owner Jere Gettle also publishes "The Heirloom Gardener Magazine" and each year sponsors two large public events celebrating heirloom varieties.

Johnny's Selected Seeds
955 Benton Ave.
Winslow, ME 04901-2601
Phone 877-564-6697
Web site www.johnnyseeds.com

Johnny's is almost universally popular with Master Gardeners and certified organic growers. They publish a catalog for the general public and one for commercial growers. Both are chocked full of detailed growing information and tips. Johnny's offers over 100 varieties of certified organically grown seed, clearly marked in the catalog. The non-seed hardware gardening products and other items they offer are ones that true gardeners will use, none of the cutesy stuff.

Grandma's Garden
Underwood Gardens
1414 Zimmerman Rd.
Woodstock, IL 60098
Phone 888-382-7041
Web site www.grandmasgarden.com

Underwood Gardens, Ltd. "presents a compendium of hard-to-find, open-pollinated and heirloom seeds". This is a cool catalog, something different, printed with green ink and sprinkled throughout with drawings by their local children. Here you will find unusual herbs such as Cherokee Sweet Mint (Pycnanthemum incanum), Khella (Ammi visnaga) and Toothache Plant (Spilanthes oleracea). I doubt you will see those at your local mega-mart next summer. A section of "Garden Angels" offers for sale items that can help with or improve life and time in the garden, for example fish sauce a co-fermentation of fish and plant (algae) residue to increase plant vigor and deter insects. They say it does not smell. For each $15 of order placed you get to choose a free packet of seeds from a list of favorites, unlike other companies offering you free seed and then sending you something you might not plant. Small catalog of 64 pages full of surprises.

John Scheepers
Kitchen Garden Seeds
23 Tulip Drive
PO Box 638
Bantam, CT 06750-0638
Phone 860-567-6086
Web site www.kitchengardenseeds.com

John Scheepers is better known for selling bulbs, hence their Tulip Drive address, but they also print this small beautifully illustrated 47 page seed catalog of old time kitchen garden favorites. Barbara Damrosch, garden author and Washington Post garden columnist, is their special consultant so tips and garden advice is more interesting than in your average catalog. On the back cover are an assortment of collections which offer groups of seed packets at a reduced price. "A Child's Garden of Wonder" collection consists of Purple Podded Pole Beans, Wee Be Little Pumpkins, Spooktacular Pumpkins, Flamivil Radishes, Adelaide Baby Carrots, Zuchetta Tromolina Squash and Sungold Cherry Tomatoes.

Select Seeds Antique Flowers
180 Stickney Hill Rd.
Union, CT 06076-4617
Phone 800-253-5691
Web site www.selectseeds.com

Select Seeds sells "heirloom treasures for modern gardens". Luscious photographs for each variety offered are accompanied by short biographical and historical information for many. If you are searching for historically accurate plantings for your Victorian or Federal or even earlier style house, this is the catalog. 67 page catalog selling seeds and plants.

For the complete listing of over 100 Safe Seed pledged companies, go to the web site of The Council for Responsible Genetics at www.gene-watch.org.

FYI: you probably won't find your local mega-mart or big box store on this list any time soon.

Lee Royer
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For more information about horticulture or the Master Gardener Program in Frederick County, call the Frederick County Office of the Maryland Cooperative Extension, 301- 600-1596, or visit http://www.frederick.umd.edu/. Our mission is to educate Maryland residents about safe, effective and sustainable horticultural practices that build healthy gardens, landscapes and communities.

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